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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,160	02/03/2006	Takayuki Ishimori	L9289.05203	9028

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EXAMINER	
DANG, DIEM DUC P	

ART UNIT	PAPER NUMBER
4145	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/565,160	ISHIMORI ET AL.	
	Examiner	Art Unit	
	DIEM DANG	4145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/19/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is objected to because it is not descriptive. Correction is required. See MPEP § 608.01(b)

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claim 1, 5, 7, 9, 10, 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Sherman (US 6,831,912 B1). Here how the reference teaches the claim:

4. As per claim 1, a packet communication apparatus comprising: a monitoring section (Sherman col 4 line 43-48) that monitors a channel condition of a radio channel (Sherman col 3 line 31-35); a determination section (Sherman col 4 line 49-55) that determines a transmission window size (Sherman col 5 line 8-40) of a packet transmission source (Sherman col 3 line 50-54) according to the channel condition monitored; and a transmission section (Sherman col 4 line 55-64) that transmits the determined transmission window (Sherman col 5 line 8-40) size to the packet transmission source (Sherman col 3 line 50-54).

5. As per claim 5, the packet communication apparatus according to claim 1, wherein the determination section has a table showing (Sherman col 7 line 64-67) transmission window sizes (Sherman col 8 line 13-17) at the packet transmission source (Sherman col 4 line 43-45)

corresponding in association with channel conditions determines the transmission window size according to the table (Sherman col 4 line 48-50).

6. As per claim 7, the packet communication apparatus according to claim 1, wherein the transmission section sets the determined transmission window size (Sherman col 4 line 51-52) in a predetermined field of the reception status report packet (Sherman col 9 line 60 - col 10 line 69) and transmits the determined transmission window size (Sherman col 10 line 55-58).

7. As for claim 9, a mobile station (Sherman fig 2 item 12) apparatus comprising the packet communication apparatus according to claim 1 (Remaining limitations are discussed above with respect to claim 1).

8. As for claim 10, a base station (Sherman fig 2 item 14) apparatus comprising the packet communication apparatus according to claim 1 (Remaining limitations are discussed above with respect to claim 1).

9. As per claim 11, a packet communication method comprising steps of: monitoring a channel condition of a radio channel; determining a transmission window size of an packet transmission source according to the channel condition monitored; and transmitting the determined transmission window size to the packet transmission source (discussed above with respect to claim 1).

Claim Rejections - 35 USC § 103

10. Claim 2, 3, 4, 6, are rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman (US 6,831,912 B1) in view of Rinchiuso (US 2003/0012222 A1).

11. As per claim 2, Sherman in view of Rinshiuso teaches monitor section as in claim 1 (see claim 1 rejection).

12. Sherman does not teach reception section that receives a packet transmitted from the packet transmission source through the radio channel; and a measurement section measuring reception quality of the received packet.

13. Rinchiuso teaches reception section (Rinchiuso col 1, para 5, line 1-2) that receives a packet transmitted from the packet transmission source (Rinchiuso col 1, para 5, line 2-4) through the radio channel; and a measurement section (Rinchiuso col 4, para 4, line 1-4) measuring reception quality of the received packet (Rinchiuso col 4, para 4, line 4-7).

14. Thus, it would have been obvious to one of ordinary skill in the art as the time the invention was made to implement the teaching of monitoring section of Rinchiuso into Sherman since Sherman suggest monitoring in general and Rinchiuso suggests the benefit use of monitor section such as a way to confirm receipt of data and to note missing data in the analogous are of system monitoring.

15. As per claim 3, Sherman in view of Rinshiuso teaches monitor section as in claim 1 (see claim 1 rejection).

16. Sherman does not teach ACK generation section that generates an ACK/NACK in response to data transmitted from a radio communication party, and determines the channel condition of the radio channel referring to an ACK/NACK generation history

17. Rinchiuso teaches ACK generation section (Rinchiuso col 1, para 7, line 4-7) that generates an ACK/NACK in response to data transmitted (Rinchiuso col 1, para 8, line 24-28)

from a radio communication party, and determines the channel condition (Rinchiuso col 1, para 8, line 28-32) of the radio channel referring to an ACK/NACK generation history.

18. Thus, it would have been obvious to one of ordinary skill in the art as the time the invention was made to implement the teaching of monitoring section of Rinchiuso into Sherman since Sherman suggest monitoring in general and Rinchiuso suggests the benefit use of monitor section such as transmitting an ACK/NACK signal to the monitoring end when the signal fail so that the sign can be retransmitted in the analogous are of system monitoring.

19. As per claim 4, Sherman in view of Rinshiuso teaches determine section as in claim 1 (see claim 1 rejection).

20. Sherman does not teach increases the transmission window size when the channel condition is good and decreases the transmission window size when the channel condition is poor.

21. Rinchiuso teaches increases the transmission window size (Rinchiuso col 3, para 24, line 8-13) when the channel condition is good (Rinchiuso col 3, para 24, line 8-13) and decreases the transmission window size (Rinchiuso col 3, para 24, line 8-13) when the channel condition is poor (Rinchiuso col 3, para 24, line 8-13).

22. Thus, it would have been obvious to one of ordinary skill in the art as the time the invention was made to implement the teaching of changing in transmission window size of Rinchiuso into Sherman since Sherman suggests transmission window size in general and Rinchiuso suggest the benefit use of communication timer from one set timed interval to another set timed interval to automatically account for varying data transfer rates for optimizing data

transfer between the networked component (Rinchiuso col 3 para 24 line1-5) in the analogous are on transmission window size.

23. As per claim 6, Sherman in view of Rinchiuso teaches determine section as in claim 1 (see claim 1 rejection).

24. Sherman does not teach the transmission window size corresponding to the number of packets that can be transmitted on the radio channel within a period in which the packet transmission source requests a transmission of a reception status report packet.

25. Rinchiuso teaches the transmission window size corresponding to the number of packets (Rinchiuso col 2, para 11, line 1) that can be transmitted on the radio channel within a period in which the packet transmission source requests (Rinchiuso col 2, para 11, line 2) a transmission of a reception status report packet (Rinchiuso col 2 para 11 line 2-4).

26. Thus, it would have been obvious to one of ordinary skill in the art as the time the invention was made to implement the teaching in transmitting data packet within assigned time of Rinchiuso into Sherman since Sherman suggests transmitting window size in general and Rinchiuso suggests the benefit use of the transmitting component request to retransmit of the missing packet/frame and wait for reception of the requested packet/frame in the analogous of transmitting packet/frame.

27. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sherman(US 6,831,912 B1) in view of Rinchiuso (US 2003/0012222 A1) as applied to claim 7.

28. Sherman teaches transmission section (Sherman col 3 line 50-54).

29. Sherman does not teach transmits the reception status repot packet in accordance with a request from the packet transmission source.

30. Rinchiuso teaches transmits the reception status repot packet (Rinchiuso col 3 para 22 line 5-13) in accordance with a request from the packet transmission source (Rinchiuso col 3 para 23 line 4-6).

31. Thus, it would have been obvious to one of ordinary skill in the art as the time the invention was made to implement the teaching in reception status report of Rinchiuso into Sherman since Sherman suggests transmitting in general and Rinchiuso suggests the benefit use of transmitting an acknowledge corresponding to the data received (Rinchiuso col 3 para 22 line 5-7) such as the communication device acknowledges receipt of data with ACK signal or acknowledge failure of receipt of data with a NACK signal in the analogous are of transmitting.

Conclusion

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIEM DANG whose telephone number is (571)270-5635. The examiner can normally be reached on Monday-Friday.

33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj Kumar can be reached on 571-272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Diem Dang

/Pankaj Kumar/
Supervisory Patent Examiner, Art Unit 4145